

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/S27,047

Source: PST

Date Processed by STIC: 3-18-05

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PCT

RAW SEQUENCE LISTING

DATE: 03/18/2005

PATENT APPLICATION: US/10/527,047

TIME: 11:05:39

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\03182005\J527047.raw

5 <110> APPLICANT: Scil Technology GmbH
 6 HELLERBRAND, Klaus
 7 BEAUCAMP, Nicola
 8 KOHNERT, Ulrich
 10 <120> TITLE OF INVENTION: METAL IMPLANT COATED WITH OSTEOINDUCTIVE PROTEINS AND
 METHODS FOR ITS
 11 MANUFACTURE
 W--> 12 <130> FILE REFERENCE: 009848-0314856
 C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/527,047
 C--> 15 <141> CURRENT FILING DATE: 2005-03-07
 17 <150> PRIOR APPLICATION NUMBER: PCT/EP03/07439
 18 <151> PRIOR FILING DATE: 2003-07-09
 20 <160> NUMBER OF SEQ ID NOS: 6
 22 <170> SOFTWARE: PatentIn version 3.1
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 396
 27 <212> TYPE: PRT
 28 <213> ORGANISM: Homo sapiens
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 37 Leu Leu Gly Gly Ala Ala Gly Leu Val Pro Glu Leu Gly Arg Arg Lys
 38 20 25 30
 41 Phe Ala Ala Ala Ser Ser Gly Arg Pro Ser Ser Gln Pro Ser Asp Glu
 42 35 40 45
 45 Val Leu Ser Glu Phe Glu Leu Arg Leu Leu Ser Met Phe Gly Leu Lys
 46 50 55 60
 49 Gln Arg Pro Thr Pro Ser Arg Asp Ala Val Val Pro Pro Tyr Met Leu
 50 65 70 75 80
 53 Asp Leu Tyr Arg Arg His Ser Gly Gln Pro Gly Ser Pro Ala Pro Asp
 54 85 90 95
 57 His Arg Leu Glu Arg Ala Ala Ser Arg Ala Asn Thr Val Arg Ser Phe
 58 100 105 110
 61 His His Glu Glu Ser Leu Glu Glu Leu Pro Glu Thr Ser Gly Lys Thr
 62 115 120 125
 65 Thr Arg Arg Phe Phe Phe Asn Leu Ser Ser Ile Pro Thr Glu Glu Phe
 66 130 135 140
 69 Ile Thr Ser Ala Glu Leu Gln Val Phe Arg Glu Gln Met Gln Asp Ala
 70 145 150 155 160
 73 Leu Gly Asn Asn Ser Ser Phe His His Arg Ile Asn Ile Tyr Glu Ile
 74 165 170 175
 77 Ile Lys Pro Ala Thr Ala Asn Ser Lys Phe Pro Val Thr Arg Leu Leu
 78 180 185 190
 81 Asp Thr Arg Leu Val Asn Gln Asn Ala Ser Arg Trp Glu Ser Phe Asp

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85 Val Thr Pro Ala Val Met Arg Trp Thr Ala Gln Gly His Ala Asn His
86          210          215          220
89 Gly Phe Val Val Glu Val Ala His Leu Glu Glu Lys Gln Gly Val Ser
90 225          230          235          240
93 Lys Arg His Val Arg Ile Ser Arg Ser Leu His Gln Asp Glu His Ser
94          245          250          255
97 Trp Ser Gln Ile Arg Pro Leu Leu Val Thr Phe Gly His Asp Gly Lys
98          260          265          270
101 Gly His Pro Leu His Lys Arg Glu Lys Arg Gln Ala Lys His Lys Gln
102          275          280          285
105 Arg Lys Arg Leu Lys Ser Ser Cys Lys Arg His Pro Leu Tyr Val Asp
106          290          295          300
109 Phe Ser Asp Val Gly Trp Asn Asp Trp Ile Val Ala Pro Pro Gly Tyr
110 305          310          315          320
113 His Ala Phe Tyr Cys His Gly Glu Cys Pro Phe Pro Leu Ala Asp His
114          325          330          335
117 Leu Asn Ser Thr Asn His Ala Ile Val Gln Thr Leu Val Asn Ser Val
118          340          345          350
121 Asn Ser Lys Ile Pro Lys Ala Cys Cys Val Pro Thr Glu Leu Ser Ala
122          355          360          365
125 Ile Ser Met Leu Tyr Leu Asp Glu Asn Glu Lys Val Val Leu Lys Asn
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129 Tyr Gln Asp Met Val Val Glu Gly Cys Gly Cys Arg
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135 <212> TYPE: PRT
136 <213> ORGANISM: Homo Sapiens
139 <400> SEQUENCE: 2
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145 Leu Trp Ala Pro Leu Phe Leu Leu Arg Ser Ala Leu Ala Asp Phe Ser
146          20          25          30
149 Leu Asp Asn Glu Val His Ser Ser Phe Ile His Arg Arg Leu Arg Ser
150          35          40          45
153 Gln Glu Arg Arg Glu Met Gln Arg Glu Ile Leu Ser Ile Leu Gly Leu
154          50          55          60
157 Pro His Arg Pro Arg Pro His Leu Gln Gly Lys His Asn Ser Ala Pro
158 65          70          75          80
161 Met Phe Met Leu Asp Leu Tyr Asn Ala Met Ala Val Glu Glu Gly Gly
162          85          90          95
165 Gly Pro Gly Gly Gln Gly Phe Ser Tyr Pro Tyr Lys Ala Val Phe Ser
166          100          105          110
169 Thr Gln Gly Pro Pro Leu Ala Ser Leu Gln Asp Ser His Phe Leu Thr
170          115          120          125
173 Asp Ala Asp Met Val Met Ser Phe Val Asn Leu Val Glu His Asp Lys
174          130          135          140
177 Glu Phe Phe His Pro Arg Tyr His His Arg Glu Phe Arg Phe Asp Leu

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178 145          150          155          160
181 Ser Lys Ile Pro Glu Gly Glu Ala Val Thr Ala Ala Glu Phe Arg Ile
182          165          170          175
185 Tyr Lys Asp Tyr Ile Arg Glu Arg Phe Asp Asn Glu Thr Phe Arg Ile
186          180          185          190
189 Ser Val Tyr Gln Val Leu Gln Glu His Leu Gly Arg Glu Ser Asp Leu
190          195          200          205
193 Phe Leu Leu Asp Ser Arg Thr Leu Trp Ala Ser Glu Glu Gly Trp Leu
194          210          215          220
197 Val Phe Asp Ile Thr Ala Thr Ser Asn His Trp Val Val Asn Pro Arg
198 225          230          235          240
201 His Asn Leu Gly Leu Gln Leu Ser Val Glu Thr Leu Asp Gly Gln Ser
202          245          250          255
205 Ile Asn Pro Lys Leu Ala Gly Leu Ile Gly Arg His Gly Pro Gln Asn
206          260          265          270
209 Lys Gln Pro Phe Met Val Ala Phe Phe Lys Ala Thr Glu Val His Phe
210          275          280          285
213 Arg Ser Ile Arg Ser Thr Gly Ser Lys Gln Arg Ser Gln Asn Arg Ser
214          290          295          300
217 Lys Thr Pro Lys Asn Gln Glu Ala Leu Arg Met Ala Asn Val Ala Glu
218 305          310          315          320
221 Asn Ser Ser Ser Asp Gln Arg Gln Ala Cys Lys Lys His Glu Leu Tyr
222          325          330          335
225 Val Ser Phe Arg Asp Leu Gly Trp Gln Asp Trp Ile Ile Ala Pro Glu
226          340          345          350
229 Gly Tyr Ala Ala Tyr Tyr Cys Glu Gly Glu Cys Ala Phe Pro Leu Asn
230          355          360          365
233 Ser Tyr Met Asn Ala Thr Asn His Ala Ile Val Gln Thr Leu Val His
234          370          375          380
237 Phe Ile Asn Pro Glu Thr Val Pro Lys Pro Cys Cys Ala Pro Thr Gln
238 385          390          395          400
241 Leu Asn Ala Ile Ser Val Leu Tyr Phe Asp Asp Ser Ser Asn Val Ile
242          405          410          415
245 Leu Lys Lys Tyr Arg Asn Met Val Val Arg Ala Cys Gly Cys His
246          420          425          430
249 <210> SEQ ID NO: 3
250 <211> LENGTH: 501
251 <212> TYPE: PRT
252 <213> ORGANISM: Homo Sapiens
255 <400> SEQUENCE: 3
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258 1          5          10          15
261 Leu Asp Leu Glu Phe Ile Cys Thr Val Leu Gly Ala Pro Asp Leu Gly
262          20          25          30
265 Gln Arg Pro Gln Gly Ser Arg Pro Gly Leu Ala Lys Ala Glu Ala Lys
266          35          40          45
269 Glu Arg Pro Pro Leu Ala Arg Asn Val Phe Arg Pro Gly Gly His Ser
270          50          55          60
273 Tyr Gly Gly Gly Ala Thr Asn Ala Asn Ala Arg Ala Lys Gly Gly Thr

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274	65					70					75				80	
277	Gly	Gln	Thr	Gly	Gly	Leu	Thr	Gln	Pro	Lys	Lys	Asp	Glu	Pro	Lys	Lys
278					85					90					95	
281	Leu	Pro	Pro	Arg	Pro	Gly	Gly	Pro	Glu	Pro	Lys	Pro	Gly	His	Pro	Pro
282					100					105				110		
285	Gln	Thr	Arg	Gln	Ala	Thr	Ala	Arg	Thr	Val	Thr	Pro	Lys	Gly	Gln	Leu
286					115					120				125		
289	Pro	Gly	Gly	Lys	Ala	Pro	Pro	Lys	Ala	Gly	Ser	Val	Pro	Ser	Ser	Phe
290		130						135				140				
293	Leu	Leu	Lys	Lys	Ala	Arg	Glu	Pro	Gly	Pro	Pro	Arg	Glu	Pro	Lys	Glu
294	145					150					155					160
297	Pro	Phe	Arg	Pro	Pro	Pro	Ile	Thr	Pro	His	Glu	Tyr	Met	Leu	Ser	Leu
298						165					170				175	
301	Tyr	Arg	Thr	Leu	Ser	Asp	Ala	Asp	Arg	Lys	Gly	Gly	Asn	Ser	Ser	Val
302					180					185				190		
305	Lys	Leu	Glu	Ala	Gly	Leu	Ala	Asn	Thr	Ile	Thr	Ser	Phe	Ile	Asp	Lys
306					195					200				205		
309	Gly	Gln	Asp	Asp	Arg	Gly	Pro	Val	Val	Arg	Lys	Gln	Arg	Tyr	Val	Phe
310		210						215				220				
313	Asp	Ile	Ser	Ala	Leu	Glu	Lys	Asp	Gly	Leu	Leu	Gly	Ala	Glu	Leu	Arg
314	225					230					235					240
317	Ile	Leu	Arg	Lys	Lys	Pro	Ser	Asp	Thr	Ala	Lys	Pro	Ala	Val	Pro	Arg
318					245						250				255	
321	Ser	Arg	Arg	Ala	Ala	Gln	Leu	Lys	Leu	Ser	Ser	Cys	Pro	Ser	Gly	Arg
322					260					265				270		
325	Gln	Pro	Ala	Ala	Leu	Leu	Asp	Val	Arg	Ser	Val	Pro	Gly	Leu	Asp	Gly
326					275					280				285		
329	Ser	Gly	Trp	Glu	Val	Phe	Asp	Ile	Trp	Lys	Leu	Phe	Arg	Asn	Phe	Lys
330		290						295				300				
333	Asn	Ser	Ala	Gln	Leu	Cys	Leu	Glu	Leu	Glu	Ala	Trp	Glu	Arg	Gly	Arg
334	305					310					315					320
337	Thr	Val	Asp	Leu	Arg	Gly	Leu	Gly	Phe	Asp	Arg	Ala	Ala	Arg	Gln	Val
338					325					330					335	
341	His	Glu	Lys	Ala	Leu	Phe	Leu	Val	Phe	Gly	Arg	Thr	Lys	Lys	Arg	Asp
342					340					345				350		
345	Leu	Phe	Phe	Asn	Glu	Ile	Lys	Ala	Arg	Ser	Gly	Gln	Asp	Asp	Lys	Thr
346					355					360				365		
349	Val	Tyr	Glu	Tyr	Leu	Phe	Ser	Gln	Arg	Arg	Lys	Arg	Arg	Ala	Pro	Leu
350		370						375				380				
353	Ala	Thr	Arg	Gln	Gly	Lys	Arg	Pro	Ser	Lys	Asn	Leu	Lys	Ala	Arg	Cys
354	385					390					395					400
357	Ser	Arg	Lys	Ala	Leu	His	Val	Asn	Phe	Lys	Asp	Met	Gly	Trp	Asp	Asp
358					405					410					415	
361	Trp	Ile	Ile	Ala	Pro	Leu	Glu	Tyr	Glu	Ala	Phe	His	Cys	Glu	Gly	Leu
362					420					425				430		
365	Cys	Glu	Phe	Pro	Leu	Arg	Ser	His	Leu	Glu	Pro	Thr	Asn	His	Ala	Val
366					435				440					445		
369	Ile	Gln	Thr	Leu	Met	Asn	Ser	Met	Asp	Pro	Glu	Ser	Thr	Pro	Pro	Thr
370		450						455				460				

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373 Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe Ile Asp
374 465                470                475                480
377 Ser Ala Asn Asn Val Val Tyr Lys Gln Tyr Glu Asp Met Val Val Glu
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381 Ser Cys Gly Cys Arg
382                500
385 <210> SEQ ID NO: 4
386 <211> LENGTH: 373
387 <212> TYPE: PRT
388 <213> ORGANISM: Homo Sapiens
391 <400> SEQUENCE: 4
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394 1                5                10                15
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398                20                25                30
401 Arg Leu Leu Ser Met Phe Gly Leu Lys Gln Arg Pro Thr Pro Ser Arg
402                35                40                45
405 Asp Ala Val Val Pro Pro Tyr Met Leu Asp Leu Tyr Arg Arg His Ser
406                50                55                60
409 Gly Gln Pro Gly Ser Pro Ala Pro Asp His Arg Leu Glu Arg Ala Ala
410 65                70                75                80
413 Ser Arg Ala Asn Thr Val Arg Ser Phe His His Glu Glu Ser Leu Glu
414                85                90                95
417 Glu Leu Pro Glu Thr Ser Gly Lys Thr Thr Arg Arg Phe Phe Phe Asn
418                100               105               110
421 Leu Ser Ser Ile Pro Thr Glu Glu Phe Ile Thr Ser Ala Glu Leu Gln
422                115               120               125
425 Val Phe Arg Glu Gln Met Gln Asp Ala Leu Gly Asn Asn Ser Ser Phe
426                130               135               140
429 His His Arg Ile Asn Ile Tyr Glu Ile Ile Lys Pro Ala Thr Ala Asn
430 145               150               155               160
433 Ser Lys Phe Pro Val Thr Arg Leu Leu Asp Thr Arg Leu Val Asn Gln
434                165               170               175
437 Asn Ala Ser Arg Trp Glu Ser Phe Asp Val Thr Pro Ala Val Met Arg
438                180               185               190
441 Trp Thr Ala Gln Gly His Ala Asn His Gly Phe Val Val Glu Val Ala
442                195               200               205
445 His Leu Glu Glu Lys Gln Gly Val Ser Lys Arg His Val Arg Ile Ser
446                210               215               220
449 Arg Ser Leu His Gln Asp Glu His Ser Trp Ser Gln Ile Arg Pro Leu
450 225               230               235               240
453 Leu Val Thr Phe Gly His Asp Gly Lys Gly His Pro Leu His Lys Arg
454                245               250               255
457 Glu Lys Arg Gln Ala Lys His Lys Gln Arg Lys Arg Leu Lys Ser Ser
458                260               265               270
461 Cys Lys Arg His Pro Leu Tyr Val Asp Phe Ser Asp Val Gly Trp Asn
462                275               280               285
465 Asp Trp Ile Val Ala Pro Pro Gly Tyr His Ala Phe Tyr Cys His Gly
466                290               295               300

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VERIFICATION SUMMARY

DATE: 03/18/2005

PATENT APPLICATION: US/10/527,047

TIME: 11:05:40

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L:14 M:270 C: Current Application Number differs, Replaced Current Application Number

L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date